SAN FRANCISCO DISTRICT

US Army Corps of Engineers

PUBLIC NOTICE

NUMBER: 23827N DATE: May 16, 2001
RESPONSE REQUIRED BY: May 31, 2001

Regulatory Branch
333 Market Street
San Francisco, CA 94105-2197

PERMIT MANAGER: David Ammerman PHONE: 707-443-0855 dammerman@spd.usace.army.mil

1. **INTRODUCTION:** The City of Ferndale, P.O. Box 1095, Ferndale, California 95536, through their agent, Spencer Engineering and Construction Management, Inc. (Contact: Mr. T. Scott Kelly at 707-839-4336), has applied for a Department of the Army permit to place 1,455 cubic yards of fill along 2,459 lineal feet of streambank, in connection with the Ferndale Flood Hazard Mitigation Project - Phase 2, which would involve stream channel and bank widening, bridge replacements, bank stabilization, and stream/riparian restoration in Francis Creek, within the City of Ferndale, in Humboldt County, California. This application is being processed pursuant to the provisions of Section 404 of the Clean Water Act (33 U.S.C. 1344).

2. **PROJECT DESCRIPTION:** As shown in the attached drawings (Sheets 1 through 20), the applicant plans to construct Phase 2 of the Ferndale Flood Hazard Mitigation Project, which would include (1) widening of 2,459 lineal feet of Francis Creek south (upstream) of Arlington Avenue; (2) the removal and replacement of the Fern Street Bridge, the 4th Street Culvert and the Ocean Avenue Culvert; (3) the removal and replacement of one private pedestrian bridge; (4) the placement of a combination of rock slope protection (RSP) and coir mesh (a biodegradable fabric used to protect exposed bank from erosion) where the stream bank is widened; (5) replacement and/or reconstruction of fences and concrete walls outside of the creek; and (6) restoration of vegetation within the creek riparian corridor. Approximately 1,000 feet of stream channel would be used for construction equipment access.

The purpose of the proposed Francis Creek flood Control Project is to reduce the flooding hazard, reduce impacts to public health and safety, and to minimize damage to historic buildings, as well as to public and private property. Ferndale and the surrounding areas have historically had problems with stormwater and drainage overflow caused by heavy winter rains. Since the milestone 1964 Eel River Flood, storm events have occurred in 1972, 1974, 1986, 1993, 1995, and 1996 (FEMA, Environmental Assessment, 1999). Francis Creek's flood flow capacity is restricted by culverts and bridges of insufficient capacity, and by sediment buildup and debris that have collected over time (FEMA, FONSI, 1999).

The Corps of Engineers (Corps) previously authorized Phase 1 of the Ferndale Flood Hazard Mitigation Project on June 7, 2000 (Permit No. 23827N), under Nationwide Permit numbers 3 (Maintenance) and 13 (Bank Stabilization). Phase 1 of the project included work along 1,050 lineal feet of Francis Creek between the Arlington Avenue bridge and just downstream of a residence at 1409 Main Street in Ferndale. The work included stream widening, replacement of the Arlington Avenue bridge and several pedestrian bridges, removal of concrete retaining walls, creation of a meandering stream alignment, replacement and reconstruction of a pedestrian boardwalk over the creek, restoration of riparian habitat along the creek, and placement of 600 cubic yards of RSP. Phase 1 of the project was completed in late November 2000.

In the City of Ferndale's 2001 permit application to the Corps, the City states that construction of the Francis Creek Flood Control Project would be in three phases. Phase I was completed, Phase 2 is proposed for 2001, and Phase 3 would include improvements to culverts on the east side of Ferndale away from Francis Creek. There is no permit application to the Corps for Phase 3 as of the date of this Public Notice. The applicant states Phase 3 construction is planned for 2002.

Phase 2 general construction procedures include: Heavy equipment access would occur from both the banks and the creek channel (See Sheets 3 through 7 of 20). There would be seven creek access points where equipment would enter the creek channel, not including the Ocean Avenue culvert, 4th Street culvert, and Fern street culvert. The creek access points would be in areas with planned bank modification in order to limit the amount of bank disturbance. In areas where the creek channel is used for equipment access and there is no proposed bank modification, the limits of disturbance would be limited to the area between the toes of existing bank. Filter fabric would be placed on top of the native channel material and would be covered with a minimum of 3 inches of clean cobble. After the work is completed, the filter fabric and cobble would be removed.

Construction equipment would access a large portion of the work north of Fern Street from the top of the bank. This would be facilitated by the construction of temporary access routes through privately owned pasture land adjacent to the proposed bank stabilization (See Sheets 3 through 5 of 20). In these areas, an excavator would extend from the top of the bank to excavate and place rock material.

Ocean Street Culvert (Sheets 8 of 20 and 9 of 20): This is the most upstream part of the proposed project. Work would include replacement of the existing culvert with a cast-in-place rectangular concrete box culvert, with new concrete wingwalls. Francis Creek adjacent to the culvert on both the upstream and downstream ends would be widened and stabilized. The new culvert invert elevation would be three feet below the original channel to allow for natural bedload movement. The existing concrete vertical retaining wall that confines the channel on the northeast side of the bridge would be replaced with a sloped stream bank armored with RSP. There would be 70 feet of streambank armored with RSP upstream and downstream of the culvert.

4th Street Culvert (Sheets 10 of 20 and 11 of 20): This feature is located just downstream of Ocean Avenue Culvert where 4th Street crosses Francis Creek. The work includes replacement of the culvert and creek widening and stabilization. This culvert would also be replaced with rectangular concrete box culvert and new concrete wingwalls, and the culvert invert placed three feet below the original channel. The streambank would be armored with RSP and coir mesh for 153 lineal feet.

Fern Street Culvert North to Shamsi Court Area (Sheet 12 of 20, only vicinity of 515 Shamsi Court is shown for a typical view): The work area begins just south of the Fern Street culvert and extends 750 feet upstream to the residence at 508 Shamsi Court. The work includes only widening and bank stabilization. A combination of RSP and coir mesh would be placed along 425 lineal feet of streambank.

Fern Street Culvert (Sheet 13 of 20): The work includes replacement of the culvert at Fern Street and widening and stabilization of Francis Creek. A rectangular concrete box culvert and new wingwalls would replaced the existing culvert. Bank armoring would occur along 263 lineal feet of streambank with RSP and coir mesh..

Fern Street Culvert to Arlington Avenue: The work includes placement of RSP and coir mesh along the entire 1,549 lineal feet of streambank. One pedestrian foot bridge would be replaced (Sheet 14 of 20).

The full set of construction drawings can be viewed at Ferndale's Town Hall or the Corps' Eureka Office. See above header for phone numbers.

3. **STATE APPROVALS:** Under Section 401 of the Clean Water Act (33 U.S.C. Section 1341), an applicant for a Corps permit must obtain a State water quality certification or waiver before a Corps permit may be issued. The Corps has confirmed through contacts with the California Regional Water Quality Control Board (RWQCB), North Coast Region, that the applicant has requested water quality certification in writing from RWQCB for the Francis Creek Flood Control Project. RWQCB action on the City of Ferndale's request is pending as of the date of this Public Notice. No Corps permit will be granted until the applicant obtains the required certification. Water quality certification shall be explicit, or it will be deemed to have occurred if the State fails or refuses to act on a valid request for certification within 60 days after the receipt of a valid request, unless the District Engineer determines a shorter or longer period is reasonable for the State to act.

Those parties concerned with any water quality issues that may be associated with this project should write to the Executive Officer, California Regional Water Quality Control Board, North Coast Region, 5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403, by the close of the comment period of this public notice.

4. **ENVIRONMENTAL ASSESSMENT:** The Federal Emergency Management Agency (FEMA) is providing Federal funding for the above project and is, therefore, the lead Federal agency for the Ferndale Flood Hazard Mitigation Project. USR Greiner Woodward Clyde Federal Services, under contract with FEMA, prepared a Final Environmental Assessment (FEA) addressing environmental impacts of both Phase 1 and Phase 2 of the above project in the document titled, Final Environmental Assessment, City of Ferndale, Francis Creek Flood Control Project, HMGP #1046-380-1008, dated September 10, 1999. The proposed project in both phases is referred to as Alternative 2 in the FEA. The above FEA was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 (Public Law 91-190), the Council on Environmental Quality's (CEQ) regulations implementing NEPA (40 CFR Parts 1500-1508) and FEMA's implementing regulations (44 CFR Part 10). The Corps of Engineers has also assessed the environmental impacts of the action proposed in accordance with the requirements of the Corps of Engineers' Regulations, 33 CFR 230 and 325, Appendix B. Unless otherwise stated, the Environmental Assessment describes only the impacts (direct, indirect, and cumulative) resulting from activities within the jurisdiction of the Corps of Engineers. In addition, unless otherwise stated, information for the Corps' Environmental Assessment (EA) will be derived from the FEMA FEA or would be incorporated by reference into Corps' EA.

The Environmental Assessment resulted in the following findings:

a. IMPACTS ON THE AQUATIC ECOSYSTEM

(1) PHYSICAL/CHEMICAL CHACTERISTICS AND ANTICIPATED CHANGES

Substrate - Between the downstream end of the project near Van Ness Avenue and the upstream end of Phase I at the Arlington Avenue Bridge, Francis Creek was widened by 6 to 9 feet at top of bank in six of the reaches (CS 16 to 23), 3 to 6 feet in three of the reaches (CS-23-26), and 6 to 12 feet in three of the reaches (CS-26 to 30). A total of 1,050 lineal feet of Francis Creek was widened during Phase 1. Rock slope protection replaced earthen or concrete channel and bank, with 600 cubic yards of RSP placed along 1,000 lineal feet of streambank. A meandering stream alignment on the channel bottom was created for fish habitat. Existing channel substrate was retained where practicable to protect fish habitat. Reaches lacking gravel were supplied with imported river gravel of 0.25 inch diameter for placement on the channel bottom.

Phase 2: The reaches between the Arlington Avenue Bridge and upstream to the Ocean Avenue Culvert (CS-31 to 61) would be widened 6 to 12 feet at top of bank on two locations, 9 to 12 feet at two more locations, 0 to 6 feet at one location, and 0 to 3 feet at the six upstream most locations. A total of 2,459 lineal feet of Francis Creek would be widened during

Phase 2. A total of 1,455 CY of fill, mostly RSP with the rest concrete wingwall or culvert structures and backfill, would be placed along approximately 2400 lineal feet of streambank. The earthen and concrete portions of the streambank and parts of the channel bottoms would be replaced with coir mesh, geotextile fabric, and RSP of sizes between 1/4 ton to 4 tons.

After widening, bridge replacement, and placement of RSP is complete, restoration of the creek channel bottom at the Ocean Avenue culvert, the 4th Street culvert, and the Fern Street culvert would consist of placing clean gravel 1/4 inch to 5 inch diameter in the bottom of the culvert and the original position of the creek thalweg restored with final grading.

Erosion/Sedimentation Rate - The proposed project has resulted in (Phase 1) and would have (Phase 2) short-term, minor, adverse erosion effects and sedimentation impacts, provided erosion and sedimentation controls are implemented in accordance with the City of Ferndale's Section 02930, Erosion and Sediment Control document submitted with the City's permit application.

Water Quality - The FEMA EA states the potential for reduced water quality from erosion, scour, and sedimentation during construction would be mitigated through implementation of the city's erosion and sediment control plan for this project and through re-routing streamflow by use of sandbags, hay bales, and in-stream piping past the work sites. Sedimentation from erosion would occur due to widening the Francis Creek channel, replacing driveways and pedestrian or street bridges, removing the 4th Street bridge, and the construction process of stabilizing streambanks with RSP and coir mesh. During winter storms, ground surface in the vicinity of Ferndale is saturated with water. Increasing the capacity of Francis Creek would not change water table levels. Water would be contained in the creek due to the completed creek widening. The City of Ferndale would monitor streambank erosion and destabilization of stream banks within the project area after high flow events. Damaged or deteriorated streambanks would be repaired.

(2) BIOLOGICAL CHARACTERISTICS AND ANTICIPATED CHANGES

Pool and Riffle Areas (Special Aquatic Site) - Much of Francis Creek (about 1,450 lineal feet), has been channelized with a variety of bank protection measures including concrete bank protection, RSP, and retaining walls prior to Phase 1 construction. Some pool and riffle complexes exist upstream and downstream of the City of Ferndale proper. Most of the stream channel ending downstream at its confluence with the Salt River is heavily laden with silt from canyon landslides, flood sediment, and agricultural/city run-off. Property owners along Francis Creek pastureland frequently excavate sediment from Francis Creek and sidecast the sediment on adjacent pasture. The channel excavation and sidecasting is an attempt to increase channel capacity until the next winter storm re-fills the channel with sediment. Both Phase I and Phase 2 of the flood control project would incorporate mitigation measures such as retaining, where possible, existing gravel substrate for fish spawning use and creation of meanders within the completed stream sections to encourage development of pool and riffle complexes.

Endangered Species - On December 15, 2000, FEMA initiated formal Section 7 consultation with the National Marine Fisheries Service (NMFS) pursuant to the Federal Endangered species Act of 1973, as amended (16 U.S.C. 1531 et seq), regarding the Francis Creek Flood Control Project's (both Phase 1 and Phase 2) potential impacts to anadramous fish, in particular, steelhead. Steelhead (Oncorhynchus mykiss) is listed as threatened by the NMFS, including in the Francis Creek watershed. There is no information on the presence, if any, of coho salmon (O. kisutch) or chinook salmon (O. tschawytscha in Francis Creek. Both chinook and coho salmon are listed as threatened by NMFS. As of the date of this Public Notice, FEMA is awaiting a Biological Opinion and Incidental Take Statement from NMFS in response to FEMA's letter.

The 1999 FEMA FEA has identified no impacts to other federally listed endangered species.

Habitat for Fish, Other AquaticOrganisms, Wildlife – Non-channelized sections of Francis Creek, usually outside the city limits, provides suitable habitat for several amphibian species such as Pacific giant salamander (Dicamptodon ensatus), western toad (Bufo boreas), northern red-legged frog (Rana aurora aurora), and the rough-skinned newt (Taricha granulosa). The FEMA FEA also states the California red legged frog (Rana aurora draytonii) may also be present in this area. Fish present or potentially present in the creek include coastal cutthroat trout (Oncorhynchus clarki clarki), squawfish (Ptychocheilus grandis), Pacific lamprey (Lampetra tridentata), and three spined stickleback (Gasterosteus aculeatus).

There would be short-term, minor, adverse impacts to all of the above species during construction of Phase 2 and as a result of the year 2000 construction of Phase 1 of the project. The impacts would be minimized with restrictions on the project work period (June 15 to October 15) when creek water levels would drop to barely flowing. In addition, all of the above species would most likely be present in non-channelized portions of Francis Creek except during periods of high winter flow. During construction of Phase 1, construction and other unidentified delays resulted in the contractors working instream beyond October 15, 2000. This may have resulted in adverse impacts to aquatic organisms including fish.

Upon Phase 2 completion, the project would have long-term, moderate, beneficial impacts on aquatic life including fish. Among the mitigation measures for fish habitat are to replant or maintain riparian corridors along Francis Creek, retain existing gravel substrate for fish spawning, and create meander bends within the bottom of the channels to encourage development of fish pools and riffles between the streambanks.

b. IMPACTS ON RESOURCES OUTSIDE THE AQUATIC ECOSYSTEM

(1) PHYSICAL CHARACTERISTICS AND ANTICIPATED CHANGES

Air Quality - The project activity would have minor, short-term impacts on air quality in the vicinity of the project site. Based on the relative minor size of the proposed project and limited to an evaluation of air quality impacts only within Corps jurisdictional areas, the Corps has determined that the total direct and non-direct project emissions would not exceed the de minimis threshold levels of 40 CFR 93.153. Therefore, the proposed project would conform to the State Air Quality Implementation Plan (SIP) for California.

Noise - Both Phase 1 and Phase 2 construction is within the downtown City of Ferndale. Ambient noise includes typical city noise impacts from automobile traffic, human foot traffic, barking dogs, street sweepers, generators, shop sounds, and refrigeration motors. As of the date of this Public Notice, the City of Ferndale has been transformed into a movie set with the building of props and false building facades, including the actual movie filming activity. Areas of Francis Creek within agricultural pasture contains ambient noise of livestock and tractors. Compared to the current ambient noise, the proposed Phase 2 project would have short-term, minor adverse noise impacts in the Francis Creek area. City residents immediately adjacent to the proposed creek work would be subjected to increased construction noise for several summer months. This impact on local residents can be partially mitigated by confining work periods to daylight hours.

(2) BIOLOGICAL CHARACTERISTICS AND ANTICIPATED CHANGES

Riparian Habitat (Not in Corps Jurisdiction - The entire project reach of Francis Creek (prior to Phase 1 construction) has been altered by removal of most riparian vegetation to accommodate either agricultural pasture close to the creek bank, residential/commercial construction, or rip-rap, concrete retaining walls, gabions, and other forms of bank protection measures. Non-channelized or relatively undisturbed portions of Francis Creek have a riparian corridor composed of red alder (Alnus rubra), bigleaf maple (Acer macrophyllum), and willow (Salix spp.). Shrub species include blue

elderberry (Sambucus racemosa), thimbleberry (Rubus parviflorus), and honeysuckle (Lonicera sp). Understory often includes herbaceous species such as sword fern (Polystichum munitum), buttercup (Ranunculus repens), horsetail (Equisetum arvense), stinging nettle (Urtica californica), bulrush (Scirpus), and sedge (Carex sp.).

During and after project construction, the creek banks would be revegetated with riparian species and would complement the city's Erosion and Sediment Control Plan. The following species would be planted along the top of the bank and throughout the RSP slopes and coir mesh: lady fern (Athyrium filix-femina), bigleaf maple, American dogwood (Cornus stolonifera), hazel (Corylus cornuata), Douglas iris (Iris douglasiana), Sitka spruce (Picea sitchensis), sword fern, red-flowering currant (Ribes sanguineum), thimbleberry (Rubus Purviflorus), and blue elderberry.

Other Terrestrial Habitat - Other terrestrial habitat consists of several small to large fields of livestock pasture or upland grassland, mostly located northeast of downtown Ferndale between Shaw Street and the vicinity of the fairgrounds. The soils in these areas are identified as being in the Loleta series (U.C. Davis, 1965). The Loleta series is generally moderately well drained to imperfectly drained soils that support pasture crops such as annual rye, ladino clover, orchard grass, tall fescue, salina clover, and trefoil. In depressions within these soils, bulrush can invade. One of these pasture areas would be impacted by construction access to reach the creek (12-20 feet wide by approximately 300 feet long), between 5th Street and the Fern Avenue Bridge (see Sheets 3 through 5 of 20). The applicant states after use of this area for access, the pasture would be graded, disced, and re-seeded to return to pre-project conditions. Therefore, the adverse impacts to this upland pasture habitat would be short-term, and minor.

SOCIO-ECONOMIC CHARACTERISTICS AND ANTICIPATED CHANGES

Aesthetic Quality - The Phase 2 construction would create a short-term, moderate, adverse impact on aesthetic quality of the Francis Creek riparian corridor and adjacent small town atmosphere due to the presence of construction equipment and materials, disturbance to the creek channel, and artificial stream diversion. Upon completion of the proposed project, the adverse impacts would be neutralized by the creation of meandering stream channels, restored and unobstructed creek flow, and replanting of riparian vegetation.

Agricultural Activity - Heavy equipment access would be needed through livestock pasture long portions of the creek project during the construction phase. This would be a short-term, minor disruption of livestock grazing or other agricultural activity.

Economics - Past flood events in Ferndale have damaged private and public property and disrupted the town's business activities, including attraction of tourists to the historic downtown area. The 1996 flood caused an estimated $1,300,000 in damages (FEMA, FONSI, 1999). During construction of Phase 2 there would be temporary diversions of traffic or road closures in order to complete bridge replacement or creek modifications. This would cause a short-term, minor adverse impact on businesses, through the difficulty of customers reaching a particular business by walking or driving.

Employment - The proposed project would have a short-term, minor beneficial impact on employment, during construction, for heavy equipment operators, construction contractors, surveyors and engineers, and riparian/stream restoration specialists.

Public Health and Safety - During project construction, the areas adjacent to Francis Creek within the construction zone would be closed down or restricted to prevent the public from entering work areas for safety reasons. Traffic would be routed around the construction site. After project completion, the widened and stabilized Francis Creek banks would prevent or reduce flooding and erosion along approximately one mile of Francis Creek, which in turn would prevent potential public safety or

health problems resulting from flooding and damage to buildings, bridges, streets or other infrastructure.

Recreational Opportunities - A popular recreational activity along Francis Creek is a walking or drive tour of Ferndale's historic Victorian-style houses dating back to the turn of the 20th Century or before. Walking along Ferndale's main business district, shopping, eating at restaurants, and browsing storefronts is a common activity especially during special events such as Octoberfest or during the annual Humboldt County Fair held at the nearby fairgrounds. The proposed project would temporarily disrupt access by foot and car to some of Ferndale's attractions during the summer. The proposed project would have a short-term, minor, adverse impact on recreational opportunities, although viewing the construction itself might be considered a recreational activity to some.

Traffic/Transportation - The proposed project would disrupt automobile traffic through detours and road closures, an inconvenience to residential and commercial traffic. This would be a short-term, minor, adverse impact on commercial and recreational vehicle traffic. In August, the contractor is expected to complete the Arlington Avenue end of the project before the biggest annual event in Ferndale, the Humboldt County Fair, gets underway, thus avoiding increased disruption to both local residential traffic and increased out of town traffic.

(4) HISTORIC- CULTURAL CHARACTERISTICS AND ANTICIPATED CHANGES

FEMA has consulted with the Office of Historic Preservation, California Department of Parks and Recreation and the Advisory Council on Historic Preservation (ACHP) pursuant to Section 106 of the National Historic Preservation Act (NHPA), regarding the above project's potential to impact cultural resources, including archaeological sites and historic structures or artifacts. A Memorandum of Agreement (MOA) was signed by FEMA and ACHP regarding procedures and future consultations required to take into account the effect of the project on cultural resources. The MOA outlines the responsibilities of FEMA and ACHP should archaeological or historic artifacts are discovered during construction.

c. SUMMARY OF INDIRECT IMPACTS

None have been identified.

d. SUMMARY OF CUMULATIVE IMPACTS

Since the turn of the 20th Century, Francis Creek, both inside and outside the city limits, has been subjected to a variety of human-generated, recurring impacts including residential/agricultural development adjacent to the creek, and periodic excavation of the creek to remove sediment and woody obstructions. Much of the flood sediment and debris that enters Francis Creek is derived from agricultural and city runoff, sediment washed down tributaries from logging operations and landslides in the upper watershed. This sediment and debris accumulates to the point when major rainfall events tend to cause overflow of Francis Creek. In the years of 1995-1997 in particular downtown Ferndale sustained flooding with deep deposits of sediment ending up piled against residences and shops. The flooding activity and accumulation of debris required expensive clean-up of city streets, county roadways and removal of creek obstructions. Permits are still pending with the Corps to allow excavation and sidecasting of Francis Creek downstream from the city limits (Sousa property, Vevoda property, and the City of Ferndale wastewater plant). Phase 1 of the Ferndale Flood Control Project was authorized by the Corps in 2000 (23827N) and Phase 1 was completed in November 2000. The Phase 2 project would have short-term, moderate cumulative impacts on Francis Creek (increased turbidity, sedimentation, noise, adverse aesthetic quality, direct adverse impacts to any aquatic life that might be present during construction) during the construction phase. The improved creek channel conditions after construction, including the 3:1 mitigation ratio for riparian planting, increased species diversity, and restoration of the stream channel would provide a net long-term, beneficial impact cumulatively to Francis Creek. Yet unresolved and outside the City of Ferndale's control are activities by private residents and commercial

activities in unincorporated areas of Humboldt County within Francis Creek. While the reach of Francis Creek within the city limits would be restored, Francis Creek and its tributaries outside of the city limits would still have substantial bank erosion, residential development, flood sediment input, and other impacts to the aquatic environment of the Francis Creek watershed that would have to be resolved on a case by case basis by a variety of Federal, state, and local agencies.

e. CONCLUSIONS AND RECOMMENDATIONS

Based on an analysis of the above identified impacts, FEMA has determined it will not be necessary to prepare an Environmental Impact Statement (EIS) for the subject permit application (FEMA, FONSI, September 9, 1999).

5. **EVALUATION OF ALTERNATIVES**:

The FEMA FEA identified two categories of alternatives: "Alternatives eliminated from further consideration" and three alternatives considered in 1998-1999. The three alternatives considered are described below. Additional details on the alternatives maybe found in the FEMA EA.

Alternative 1 (No Action): The City of Ferndale would not undertake any activities to alleviate the flood hazard in the city. The existing high flood hazard, as described above, would remain.

Alternative 2 (Proposed Action): The proposed action (the City of Ferndale's preferred alternative) includes the Phase 1 project (channel widening, RSP placement, channel modification, bridge replacement, and revegetation that occurred in 2000) and the Phase 2 project, which is similar to Phase 1 but covers a longer reach of Francis Creek. The project description is previously discussed in this Public Notice.

Alternative 3 (Westside overflow diversion alternative): This alternative would involve the construction of a diversion structure to divert stormwater flows with a volume over 350 cubic feet per second (cfs). The diversion structure would have a capacity of 400 cfs. This action would extend the conveyance capacity of Francis Creek to approximately 750 cfs (the 25-year flood). The diversion structure would be constructed at Ocean Avenue and would convey floodwaters down 5th Street to Van Ness Avenue, and eventually reach the Salt River. This alternative is not included in the 2001 permit application to the Corps, while Alternative 2 is being considered for a Corps permit. The 2001 permit application states Phase 3 would include improvements to culverts on the east side of Ferndale away from Francis Creek. These activities would be processed by the Corps under a separate permit or permit modification.

6. **PUBLIC INTEREST EVALUATION:** The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. Evaluation of the probable impacts which the proposed activity may have on the public interest requires a careful weighing of all those factors which become relevant in each particular case. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal, and if so the conditions under which it will be allowed to occur, are therefore determined by the outcome of the general balancing process. That decision will reflect the national concern for both protection and utilization of important resources. All factors which may be relevant to the proposal must be considered including the cumulative effects thereof. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

7. **CONSIDERATION OF COMMENTS:** The Corps of Engineers is soliciting comments from the public, Federal, State and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

8. **SUBMISSION OF COMMENTS:** Interested parties may submit in writing any comments concerning this activity. Comments should include the applicant's name, the number, and the date of this notice and should be forwarded so as to reach this office within the comment period specified on page one of this notice. Comments should be sent to the Regulatory Branch. It is Corps policy to forward any such comments which include objections to the applicant for resolution or rebuttal. Any person may also request, in writing, within the comment period of this notice that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Additional details may be obtained by contacting the applicant whose address is indicated in the first paragraph of this notice, or by contacting David Ammerman of our Eureka Office at telephone 707-443-0855 or e-mail the Corps at dammerman@spd.usace.army.mil. Details on any changes of a minor nature which are made in the final permit action will be provided on request.